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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,269	09/18/2000	Johan Nilsson	040071-174	3896

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EXAMINER

APPIAH, CHARLES NANA

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

5b

Office Action Summary

Application No.

09/663,269

Applicant(s)

NILSSON, JOHAN

Examiner

Charles Appiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on April 10, 2002 (Paper #4) fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because no PTO-1449 listing all patents, publications, or other information submitted for consideration by the Office is present.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

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directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by **Wallentin et al. (6,154,450)**.

Regarding claims 1 and 12 Wallentin discloses a method and an apparatus for controlling the energy at which a transmit power control command is transmitted in a communication system including at least one base station (20), and at least one remote station (22), (see Fig. 1), comprising: determining how important it is that the transmit power control command is correctly received (determination of the SINR including the strength of the signals for all other base stations, base station comparing the Signal to interference/noise ratio to a target signal to interference/noise ratio, col. 5, lines 7-32) and setting the energy at which the transmit power control command is transmitted based on this determination (appropriate power change command being sent as indicated by the comparison result requiring a change (i.e., increase or decrease) power, col. 5, lines 32-39).

4. Claims 1, 2, 4, 10-13, 15, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by **Endo (5,943,610)**.

Regarding claims 1 and 12 Endo discloses a method and an apparatus for controlling the energy at which a transmit power control command is transmitted in a communication system including at least one base station (101, 102), and at least one remote station (22), (see Fig. 1), comprising: determining how important it is that the

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transmit power control command is correctly received (comparing the average reception field strength with block area discrimination thresholds to determine the location of the mobile terminal, col. 6, lines 7-30), and setting the energy at which the transmit power control command is transmitted based on this determination (increasing width and decreasing width of transmission power based on discrimination result, col. 6, lines 31-57).

Regarding claims 2 and 13 Endo further discloses wherein the step of setting the energy comprises setting the power at which the transmit power control command is transmitted (difference value (comparison result) being used to increase or decrease width of transmission power, col. 6, lines 44-65).

Regarding claims 4 and 15 Endo further discloses wherein the step of determining how important it is that the transmit power control command is received comprises determining a difference between a measured quality of the received signal and a reference, wherein the difference determines how important it is that the transmit power command is received (see col. 6, lines 44-57).

Regarding claims 10, 11, 21 and 22 Endo shows wherein the transmit power control is performed for the uplink direction and the downlink direction and the steps are performed in the base station and remote terminal respectively (see col. 4, lines 38-65).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over

Endo as applied to claims 1 and 12 above, and further in view of **Baum et al.**

(6,385,462).

Regarding claims 3 and 14 Endo fails to specifically disclose wherein the step of setting the energy comprises adjusting the coding of the transmit power control command.

Baum discloses adaptive power allocation method for providing adaptive power allocation with selective determination of modulation and coding in a communication system, which provides flexibility to modify the adaptive power allocation (see col. 1, lines 7-15). According to Baum a modulation/coding rate is selected for each planned links for the communication system based on signal quality associated the transmit power assigned to the link (see col. 2, lines 1-27), and that by adapting the modulation/coding rate in accordance with signal quality associated with the transmit power, imperfections of power control to increase system capacity can be taken advantage of (see col. 8, lines 19-45).

It would therefore have been obvious to one of ordinary skill in the art to use the selective coding based on signal quality associated with a transmit power with the system of Endo for the benefit of providing flexibly adaptive power control while taking advantage of the imperfections of power control to increase system capacity as taught by Baum.

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7. Claims 5-9 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Endo (5,943,610)**.

Regarding claims 5-9 and 16-20, Endo meets all limitations as applied above to claims 1 and 12 by determining the difference between a measure quality of the received signal and a reference and carrying out an increase or decrease of the transmit power with a transmit power control command based on the difference with the increase or decrease of the transmission power being a function of the difference (see col. 6, line 44 to col. 7, line 3). Endo fails to explicitly teach determining whether the difference is substantially zero whereby the decreasing or increasing of the energy at which the transmit power control command is transmitted is based on the difference being substantially zero.

However, since Endo teaches determining a difference between the measured quality and a threshold and using the difference to vary the power control width based on the difference, it would have been obvious to one of ordinary skill in the art to subjectively define the values of the difference at which the power control width would be increased or decreased including a value approximating or close to zero in order to control unnecessary power consumption while reducing adverse interference to other mobile terminals in the mobile communication network as taught by Endo.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sato (6,414,948), Komatsu (5,794,129), Naylor et al. (4,580,262)

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and Miller (6,163,707) teaches various methods and apparatus for providing power control.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703 305-6739. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703 308-6296 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 306-0377.

CA
March 23, 2003


CHARLES APPIAH
PATENT EXAMINER